Why The Healing Gods Are Twins

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The association of twins with health-giving powers is widespread in mythology, folklore, and religion. The Ashvins of the Rig-Veda, the classical Dioscuri, and the early Christian saints Cosmos and Damian are among the many examples of twins divinely empowered in the area of health and fertility. A characteristic set of attributes of twins recurs in different mythologies of wide distribution. In addition to healing, divine twins are often empowered with the ability to revive the dead, increase the fertility of man, animals, and crops, influence the weather, predict the future, and insure victory in battle. In some traditional societies these special attributes are thought to extend to all of the twins and their parents in the tribe.

Ancient and primitive societies supposed that the birth of twins was associated with divine influence, the mother having been visited or otherwise affected by supernatural powers. A frequent explanation was that twins were the result of superfetation, a divine impregnation occurring along with that by the lawful husband. The specific powers of divine twins appear to be a reflection of the particular form of origin of twins through divine interference with the fertilization process. The twins thus share some of the powers of the divine parent, particularly those pertaining to fertility. Their dual paternity and its inherent competition is related to their martial interests as well as their ability to resolve ambivalent or ambiguous situations and predict outcomes.

Ye gave to Kali, when he had grown old in years, To him, the singer, all his youthful strength again; And Vandana ye rescued from the deep abyss, And quickly Vicpala the maimed ye made to walk [1].

It has long been noted in folklore, mythology, and religion, that a pair of divine or saintly twins were often associated with the healing arts. This relationship has occurred widely in time and place and has posed an intriguing folkloristic pattern. Sigerist states, for example, in observing the widely dispersed occurrences of supernatural twins with healing powers, that no valid explanation for this relationship has been offered [2]. The interesting question as to the meaning and origin of this association brings together the viewpoints of the separate disciplines of the study of mythology and the history of medicine.

The healing powers of twins are to be found in the context of a widespread folkloristic pattern of attributes and powers associated with twins [3]. It will be of value to survey briefly the themes of myth and folklore associated with twins in order to focus on the specific question of the healing powers of twins. The birth of twins as a natural variation occurs infrequently enough (one in 80 to 100 live births) to be a source of curiosity and to provoke theories regarding their origin. Perhaps most basic is the fact that twins are a natural and available symbolic representation of the tensions and forces in man and nature. Twins serve the imagination as a symbol for philosophic dualities and formulations on the theme of opposites and as a metaphor for balances and competing forces. The mythologies of every continent contain twin

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gods, twin offspring of gods, twin heroes, and ordinary mortal twins in various story cycles. In addition to folklore accounts, every society has its special practices and attitudes toward the birth of twins.

In view of the recurrent findings in folklore and religion, we might ask if we are dealing with a universal human phenomenon. Direct cultural transmission can account only in part for the worldwide distribution of similar twin folklore features. Every continent and every ancient society appears to have taken note of twins and developed folklore, mythology, or legend in relation to twins. On the other hand, direct cultural transmission is a significant factor in some aspects of twin culture. In particular, a cult of divine twin healers appears in a wide belt stretching from ancient India to the Mediterranean. The various features which are similar at many points in this vast geographical swathe point to a common religious development in the ancient world in relation to twins as a worshipful object.

By far the most well known twins of western mythology are the Dioscuri, Castor and Pollux (Polydeuces), whose supernatural powers included those of healing. Other twins figure prominently in Greek mythology. The twin of the mighty Heracles was Iphicles. The offspring of the incestuous union of Oedipus and Iocaste are twins, Eteocles and Polyneices. Of particular interest in the present context is the mythical healer Asclepius who had a twin Ericthonius. Asclepius was fathered by the god Apollo while his brother was the result of a second liaison by his mother with a mortal. Asclepius in turn was father to twins, Macaon and Podaleirius, both highly skilled in medical and surgical arts, who served as physicians to the Greeks in the Trojan War [4].

Twins are important in native American mythology and folklore [5]. North American Indians as well as South American, including Peruvian and Amazonian tribes, all have twins in significant sequences in their mythologies. In Iroquois and Huron Indian mythology a pair of twin heroes are responsible for opposing good and bad forms of nature [6].

Radin in extensive studies of North American Indian mythology has placed the twin myths as the last phase of a sequence in heroic mythology [7]. Utilizing the details of the Winnebago cycle of myths Radin delineates a progression through four evolving phases: (1) the trickster, an undifferentiated primordial figure; (2) a partially but imperfectly differentiated individual, usually the hare; (3) a more differentiated Olympian figure, called Red Horn; and finally (4) the twins, a Promethean pair who wander widely attempting to master the world and to change the cosmos. They subsequently meet their limits and end in tragedy. Radin feels that this grouping of myths in a progressive sequence is to be found widely, e.g., Polynesian, Japanese, Greek, and Hindu mythologies, and is reflective of the evolution of primitive man's thought.

A highly detailed twin sequence has been preserved in the record of the creation myths of the Quiche nation of the pre-Columbian Mayan culture of southern Mexico [8a]. In this intricate and convoluted account, two pairs of mythical twins are involved. The first twins, Hun-Hunahpu (or One-Hunahpu) and Vucub-Hunahpu (or Seven-Hunahpu), are summoned to the Underworld and are eventually killed by the death gods. The head of One-Hunahpu is hung up in a calabash tree where it spits into the hand of a daughter of one of the death gods [8b]. She becomes pregnant giving birth to the Hero twins, Hunahpu and Xbalanque. They grow up, defeat various opponents including a rival pair of cousins, and eventually are summoned to the Underworld. They overcome the Lords of Xibalba by a series of tricks, ending in

the destruction of the two gods, One-Death and Seven-Death [8c]. The Hero twins then rise up to become the Sun and the Moon. [8d]. As will be discussed below, this latter element in particular bears an interesting similarity to Egyptian theology.

Christianity has its twin themes as well. The two sons of Zebedee, James and John, are called Boanerges by Christ, a name meaning "sons of thunder" (Mark 3.17). This epithet is equivalent to that used for Castor and Pollux, the Dioscuri ("Zeus' boys"), and it has been suggested that this is a remnant of the worship of twin divinities in the ancient Near East [9]. Christ is, of course, a divine healer; and it is noteworthy that he is referred to several times in an apochryphal work as the identical twin of the apostle Judas Thomas [10]. The work entitled the Acts of the Holy Apostle Thomas, which is believed to have been composed in Edessa in the 3rd century [11], makes explicit mention of the twinship and describes how Judas Thomas and Christ are mistaken for each other. Thus Christ provides another example of a twin with healing powers. Also famed as divinely guided healers are the early Christian saints Cosmos and Damian.

The folklore of twins often presents two contrasting themes, one a constructive role of twins as builders or founders and the other, a destructive role as warriors or competitors. Mythology, folklore, and religion often cast twins in a key role in beginnings or origins. Thus twins often are associated with the establishment of the ethnic group, the founding of a city, the beginning of civilization, or the creation of the world. There is often a etiological motif in the twin narratives, i.e., the circumstances pertaining to the twins account for some enduring feature of the descendents. In the Bible the first natural born of mankind are the twins Cain and Abel; and the offspring of Isaac, the twins Jacob and Esau, are the sources of the two great contesting Semitic strains, the Hebrews and the Arabs. The founders of Rome are Romulus and Remus. The Spartan kings are descended from the famed Dioscuri [12]. Amphion and Zethus are the mythological twin builders of Thebes in Greece [13].

The constructive aspect of twin mythology includes the roles of civilizers or culture-bearers. As mentioned above, Radin notes twins at the phase in the cycle of myths in which mankind is given gifts for his control of nature after the earlier less settling phases of creation. In the mythologies of North American Indians, e.g., Navajo, Zuni, divine twins fathered by the Sun undertake prodigious tasks to reduce the dangerous forces opposing mankind. The twins instruct men so that survival of the human race is assured in the face of great dangers and forces of destruction [14]. South and Central American Indian mythologies similarly portray a pair of divine twins who bring the gift of fire and the arts of civilization to man [15]. The murderer twin of the Bible, Cain, is also connected with man's technical advancement. He founds or builds the first city (Genesis 4.17) and according to tradition, contributes the associated arts of boundary-fixing, measuring, weighing, and fortifying. As befits a murderer who becomes a culture-bearer Cain also taught vice, luxury, and indulgence and put an end to man's simplicity [16].

In contrast to the builder theme, the mythology of twins often features destructive elements in the form of competition, rivalry, and aggression. The rivalry of the twins may have a dynastic significance as with Jacob and Esau. Furthermore, the rivalry is foreshadowed by a struggle which starts while the twins are still together in their mother's womb (*Genesis* 25.22). Other examples of intra-uterine twin antagonists are Pharez and Zarah (*Genesis* 37.28-30), Proteus and Acrisius [17], the Iroquois twins, Flint and Sapling [18], and the Huron Creator-twins [19].

The competition in mythical twins often culminates in fratricide. Romulus and Remus have a fatal quarrel as do Biblical Cain and Abel and Theban Amphion and Zethus. A variation of the fratricide theme is the simultaneous mutual slaughter of twins in combat with each other. Such is the case of Eteocles and Polyneices [20] as well as the gigantic twin sons of Poseidon, Ephialtes and Otus, who had besieged the gods on Olympus by piling Pelion on Ossa [21].

A variation on the twin's sibling rivalry is found in classical mythology where Castor and Pollux have a protracted feud not with each other but with another pair, their twin cousins Idas and Lynceus. This rivalry culminates in a titanic struggle and the deaths of Idas, Lynceus, and Castor [22]. Still another variation is in the myth of Aeolus and Boeotus, also twin sons of Poseidon, who are the object of a plot by their foster mother Theano. She instructs her own twin sons to kill Poseidon's but the tables are turned and Theano's twins are killed by Aeolus and Boeotus [23]. In the case of the Quiche Mayan myths, a fatal competition of an intergenerational nature occurs several times involving sets of twins and/or pairs of brothers [23a].

An interesting feature in the mythology and folklore of twins is the multiplying of the participants. Twins are found to be reduplicated and born as quadruplets, other twins appear as rivals, and twins give birth to twins. Poseidon has at least five sets of twin offspring [24]; Jacob has twelve. Why the replication of twins in mythology? Levi-Strauss explains this tendency of mythic and oral literature to multiply the same sequence as a thematic repetition serving to make the structural aspect of myth more apparent [25]. Paul Radin has taken note of a related feature in his studies of American Indian mythology and regards it as a reflection of a particular mentality in primitive man. Radin has characterized the majority of primitive men as actionoriented, seeking a repetitive rhythm of events, and unconcerned with progression or evolution of concepts [26]. The man of action, as Radin has labeled him, in contrast to the thinker philosopher, is not concerned with the monotony which comes with repetition but finds in it the preoccupying and diverting quality of ever-changing external reality as he perceives it. Kluckhohn in a wide-ranging formulation of the phenomenon of myth has pointed up the satisfactions served by myths in primitive society where they occupy a position comparable to that of literature in literate society [27]. The myth serves the need for emotional discharge and expression. It edifies and entertains. The repetitive character of myth and its use of the familiar word and form is basic to its efficacy and charm since it utilizes well established channels of communication which enhance and color the myth.

In the world of the supernatural, the special personal gifts of twins form a highly characteristic pattern. Both mythical and human twins are ascribed extra-ordinary powers and abilities. The broad super-natural powers of Castor and Pollux are well depicted in classical writings and remains. They are the saviours of shipwrecked sailors, senders of favorable winds, guardians of hospitality, inventors of martial music and the war dance, patrons of bards who sing of ancient battles, and the particular protectors of the Spartans in battle. In addition, they have healing powers and aid women in childbirth [28].

Their many adventures in classical mythology relate to their prowess in war and athletics. On their white chargers they might swoop down to answer the prayer of a nearly doomed individual. The feats of the Dioscuri as rescuers or saviours provide a particularly interesting theme [29]. As will be discussed, the role of miraculous rescuer was a central theme in the mythology of the Ashvins and one of the clear indications of their connection with the Dioscuri. Euripides casts the Dioscuri in the role of rescuers of their sister Helen, the chorus singing:

May you riding down through the bright air, swift on your horses, sons of Tyndareus, come down the storming courses of your stars' flaring, oh, dwellers in the sky, saviors of Helen . . . [30]

Just as the Dioscuri lead the Spartans in battle, the human twin was also regarded as particularly potent in warfare and designated to go at the head of an African tribe into battle [31], or required to engage in particular ritual performances prior to battle in order to ensure victory.

A particular focus of twins' powers lies in relation to the weather [32]. Among many African tribes the mortal twin was believed to have special abilities to bring about good weather, abundant rainfall, and consequently good crops. The twin was considered able to manipulate the forces which made for good weather or act as an intermediary for the tribe in obtaining good weather. The Kwakiutl and Nootka Indians of British Columbia regard the birth of twins as a good omen for salmon fishing [33].

Another quality prominently associated with twins is the ability to divine the future or carry out various clairvoyant or prescient activities. Thus, Iroquois twins are associated with the prediction of the future; the Golah of Liberia, the interpreting of dreams [34]; and the Peruvian Indians and African Zulus, the foretelling of weather [35]. Among mythological twins their clairvoyance is translated into a role as a teacher of navigation and a patron of travelers, wayfarers, and sailors, features common to both the Dioscuri and the Vedic Ashvins [36].

It is natural that beliefs in the healing powers of divine twins should be closely tied to ancient religious practices. The mythology of supernatural twins takes its most coherent form in what has been termed the cult of the divine twins or dioscurism. From India to the Mediterranean there is ample evidence of the ancient worship of markedly similar twin gods. Many of the sites of worship throughout this broad cultural belt show a variety of etymological links [37].

From the Dioscuri of the classical world, the tradition of healing twins was passed on to Christianity. The Christian saints Cosmas and Damian were revered for their miraculous cures such as the transplantation of a limb from a cadaver to a maimed man and the removal of a snake from a boy who had swallowed one. Following the martyrdom of Cosmas and Damian in a Diocletian persecution in 303 A.D. [38], the sick sought faith cures by sleeping overnight at their tomb at Cyrus in northern Syria. Two centuries later Justinian I moved their remains to Constantinople where the pagan shrine of the Dioscuri was rededicated to Cosmas and Damian. The practice there of healing by incubation was thus passed from the one religion to the next [39].

By far the most ancient and detailed writings referable to dioscurism are those of Vedic mythology which speak of the twin Ashvins. They are often mentioned in the most ancient of the Vedic writings, the Rig Veda, and occupy a place of honor in the Vedic pantheon as well as in later Hindu mythology. The Rig Veda in which the accounts and references to the Ashvins are to be found is dated at somewhere around 1500 to 2000 B.C. The Rig Veda is written in ancient Sanskrit and is the surviving work of the Vedic or Aryan people who preceded the Indian and Iranian civilization [40]. It is the most ancient of the varied complex of Vedic writings, and the most ancient written source associated with the cult of the divine twins. The Vedic references pre-date the earliest classical Homeric writings by as much as 1,000 years.

Attesting to the ancient status of the Ashvins is the famous Mitanni inscription in northern Mesopotamia dated about 1400 B.C. which lists one of the names of the Ashvins, Nasatyas [41].

The Ashvins, often pictured as divine horsemen, are referred to 400 times in 50 out of the 1,028 hymns of the Rig Veda. The parents of the twins are variously mentioned as the sun, heavens, ocean, earth, or two great kings [42]. They ride in a golden shining chariot, herald daybreak, overcome darkness, and appear as the respective stars of morning and evening.

They are the physicians of the gods and perform extraordinary medical feats including the revival of the dead, the restoration of sight to the blind, helping the lame to walk again, replacing a head which has been cut off, and providing prostheses for amputated limbs. They also assist in childbirth and help to cement happy marriages. The aged and impotent are restored to full vigor by them. They are the inventors of medicines and bring healing arts to mankind. Like Prometheus their philanthropic acts earn them the disfavor and suspicion of the gods.

They are inseparable companions. Their harmonious ability to coordinate themselves in good works is a model for all happy dualities. They are compared, for example, to a happy married couple, the two horns or two hoofs of an animal, the two seeing eyes, the two lips speaking sweetly, or the two confluent rivers [43].

Like two hands be investing us with vigour, like heaven and earth subduing the atmosphere, Our songs, Asvins, that proceed towards you, sharpen them well, like an axe upon the whetstone [44].

The Ashvins are ever ready to correct wrongs or outrages; and they magically snatch from danger those who call on them for help. They seek out the man who has been captured by bandits and free him, save one from drowning, and pull another from a burning chasm. The quail in the mouth of the wolf is rescued.

Throughout the lore of the Ashvins is the theme of their marvelous ability to reverse or negate nature or some nearly final catastrophic state. They are thus mediators between an outcome and its reversal, mirroring their existence as harmonious twins and bearers of the light of dawn into darkness. They are the great reconcilers. Levi-Strauss in his structural analysis of mythical thought formulates a conceptual framework of polarized terms which are mediated to form a third term. The third term is polarized against another in a process of continual structured contrasts [45].

The Ashvins are symbolic of the process of accommodation of opposing forces. Various contrasting or competing forces (light and darkness, sickness and health, violence and tranquility, etc.) are brought together to produce a harmonious synthesis. The Ashvins are the personification of coordinated action by a duality.

The myth of their birth may be interpreted as an allegory on the theme of reconciliation. In one version, the goddess Sanjna ("Conscience" or "Understanding") being unable to stand the brilliance of her husband, the sun, Surya or Vivasvat ("Righteousness" or "Eternal Law"), separated from him to a shaded spot and assumed the form of a mare. He accommodated himself to her transmutation by becoming a stallion and followed her to her forest retreat. The offspring of their union were the Ashvins [46]. Thus the benevolent healers are the result of godlike brilliance being united with the retiring form of understanding needed to relate to mankind's limitations.

Folklore offers several different theories on the origin of twins. The birth of twins was regarded with particular awe and concern by ancient man and primitive and

traditional societies; and throughout the world recognition of the birth of twins is noted in folklore and custom in the attempt to resolve the tension created by their birth. It is apparent that the birth of twins raised questions regarding the conduct of the parents. The mother of twins in some societies was required to undergo special rites of purification and separation from the tribe for a specified period, as for example among the African Ibibios tribe [47]; she may be exposed to physical punishment or even killed [48]. The offspring at birth might also receive special treatment, in certain cultures one twin being sacrificed. As an alternative to severe punitive measures refuges were set up where the mother could go in safety with her newborn to live out her life or the period of the taboo.

Whereas the twins and their mother were regarded with fear and rejection in some cultures, in others they were objects of particular favor. Thus, the Bantu mother of twins receives special recognition by the tribe [49]. The twins themselves might be highly regarded and entitled to special privileges and honors. The treatment accorded the mother or twins was related to the particular theory of twin origins entertained by the culture.

Paternity appears to be the central question for most folklore theories explaining twin births. One theory among traditional societies is that twins are the result of superfetation, i.e., they are the result of two fathers and are therefore evidence of infidelity on the part of the mother. This is so among those tribal cultures where the basic belief is that a human father can only beget one child at a time. It is natural in such societies that the birth of twins will be regarded in a negative way.

Another theory is that twins are the result of divine intervention or even impregnation of the mother by a divinity or divine force. The theme of divine intervention appears in the case of Jacob and Esau where their father Isaac had asked for God's help in relieving the barrenness of his wife Rebecca (Genesis 25.21). The more primitive belief is that the god is actually the impregnating force. In Greek mythology the sea god Poseidon appeared to be particularly endowed with the ability to produce twin offspring in his liaisons with both mortal and divine partners [50]. A variation on the theme of divine intervention is that the birth of twins is related to an act of reincarnation, a claim made by shamans at times as support for their access to non-rational realms.

The theory of divine impregnation as the source of twins is frequently combined with that of superfetation in a belief that the twins represent one mortal and one divine father. This is a common feature in Greek mythology where an account may describe a god visiting the wife already impregnated by her legitimate spouse or conversely where a woman impregnated by a god takes a mortal partner. In either case there may be hurt feelings and vengeful consequences.

The Dioscuri were born to Leda the wife of Tyndareus who was pregnant by him as well as by Zeus. Their miraculous generation is variously described. In one version they form quadruplets born along with a pair of sisters; in another version the four are born from two eggs laid by Leda as a result of a pregnancy by Zeus in his form as a swan [51]. The accompanying female pair are the famous Helen and Clytaemnestra. An interesting parallel is a midrashic tale of the first offspring of Adam and Eve. According to the account, Cain and Abel each had a female twin born along with him [52]. Another midrashic tale tells of a female twin born with each of Jacob's twelve sons [53]. Besides the Dioscuri and their sisters, other cases of god-mortal superfetation in Greek mythology include: Lynceus and Idas, Heracles and Iphicles, Dardanus and Iasion, Acrisius and Proteus, Asclepius and Erichthonius, Eurytus and Cteatus, and Amphion and Zethus [54].

The competitiveness of twins and their struggle with each other while still in the

womb might be seen as a natural extension of the two paternal rivals for the mother's sexual favors. In life a more material issue might develop in terms of inheritance or legitimacy of one twin over the other. This is clearly portrayed in the Biblical accounts of Cain and Abel and Jacob and Esau, one twin being very much offended by loss of a blessing.

Another primitive theory is that twins are the result of animal impregnation, animal pregnancies being more readily explainable as twins due to their more frequent occurrence in various species. This belief is a part of the folklore of some North American Indians in reference to the births of human twins. The animal origin theory is reflected in the myths in which the twins are hatched from an egg, e.g., the Dioscuri, the Moliones of Greek mythology.

Finally, certain foods, particularly fruits which are paired or double in form, are given as the basis for twin pregnancies. The folklore connected with foods is found widely [55]. In Europe, for example in Bavaria, the eating of two apples grown together was believed to be a cause of twins; a Wendish belief attributed twins to eating two plums; in Porton, a fruit with two kernels. In the Western Hemisphere, some Northwest Coast Indians believed that eating from both sides of an animal caused twins; Paraguay natives, a double ear of maize [56].

Running through all of these various theories is the idea that the mother of the twins is implicated in a supernatural or unusual process. She appears singled out for an aberration of nature or a special favor due to a force external to her conjugal arrangement. The reproductive process has been tampered or interfered with or varied from the normal due to one of the several possibilities. As contrasted with the single birth, twins suggested to ancient or primitive man that some awesome supernatural force was at work. The living twins remained as evidence of the intervention of a procreative force other than that accounting for one child.

Primitive societies note the special relationship of twins to the divine or supernatural by designating them with animal names, e.g., twins are called birds by the Nuer [57], salmon by the Kwakiutl [58], children of apes in Togo [59]. Levi-Strauss theorizes that using an animal name for a human provides a symbol for a relationship between nature (spiritual) forces and man. The twin is perceived as not entirely natural, occupying a position intermediate between man and spirit. The designation of the twin as an animal structures this position of the twin and provides a metaphor for grasping this relationship.

Both Levi-Strauss's structuralist theory and the primitive and ancient theories of twin paternity place twins in a position of bridging the natural and supernatural worlds. Twins are the living evidence of exuberant or supernatural procreative powers. Following from this fact, extraordinary powers fall to the twin as the inheritance from his unique parentage. In particular it might be expected that twins will have great powers in relation to fertility, both in human and non-human species. The ability to influence fertility will be reflected in powers of fructifying the barren woman as well as rejuvenating the effete male. Might not these powers over fertility be extended to restoration of health and of healing generally?

Closely akin to powers over nature's generosity is the ability to predict the outcome of crops, the weather upon which crops depend, and the offspring of domesticated animals. Thus, the divine twin has broad prognosticator powers which in turn are related to other more general abilities at foretelling, such as the outcome of battle and the navigation of voyages.

Where twins do not exist, man's imagination has sometimes created them. It is a widely held primitive belief that the products of conception along with the fetus are

vital parts with a continuing life of their own after birth. They are dealt with in various ceremonial ways in primitive societies. In some tribes the placenta is regarded as the individual's twin. The Hamitic tribes of Africa treat the placenta with particular reverence and have specific rituals pertaining to the placenta [60]. The Kooboos of southeastern Sumatra regarded the uterine products as siblings and guardian spirits of the newborn [61].

In ancient Egypt, in the earliest dynasties, the pharaoh's umbilical cord was preserved and carried in a specific kind of a case during his lifetime [62]. The famous Narmer palette from the archaic period of Egyptian history contains a drawing of the carrying case of the cord and a beardless servant bearing the placenta on a standard [63]. Later, in the New Kingdom a model was substituted for the placenta [64]. The placenta was believed to be the pharaoh's twin [65]. It has been suggested that the paired pyramids of the pharaohs are the respective tombs of a pharaoh and his placenta [66].

Among the Bagandan and other North East African tribes the placenta and cord of the king are preserved throughout his life as sacred ritual objects [67]. This is of particular significance since the tribes of North East Africa are believed to share a common Hamitic origin with ancient Egypt and show other resemblances in their religious practices to those of ancient Egypt [68]. The ancient drawings of the carrying case for the pharaoh's cord resemble a similar article used by the Bagandan and Ugandan natives [69]. The Bagandan employ the preserved placenta of the king in a monthly ritual display of the afterbirth to the new moon [70]. Upon the king's death the placenta and king are given separate burials just as two tombs were provided for the Egyptian king.

The ancient Egyptian viewed the afterlife existence with absolute conviction and maintained a highly elaborate formulation of the emanations or spiritual aspects of man. Their belief system included the non-corporeal entities called the Ka, Ba, and Akh which existed for each individual. Each of these entities has specific roles or functions both during life and after death.

It is the Ka which is of particular interest to us here since it was believed to be the pharaoh's double. In a simultaneous act of creation, the pharaoh and his double were fashioned by the creator god Khnum. Khnum or Khnemu is portrayed in temple art as a ram-headed potter who models the pharaoh and his double on his potter's wheel [71]. This double, called the Ka, was an invisible guiding genius throughout life which assumed critical importance in the continuity of the kingship upon the death of the pharaoh [72]. In the afterlife, the Ka was the significant force maintaining the "health" and vitality of the dead pharaoh. Tomb offerings were made and prayers directed to the Ka so that it might exercise its benign influence over the dead king [73]. In addition the living successor to the dead pharaoh depended on the Ka to transmit the vital power of the kingship to him [74]. Thus the placenta-double of the pharaoh which becomes the Ka is a highly important element in the king's well-being, both living and dead. The pharaoh is dependent on his placenta in effect for his rebirth.

The placenta of the pharaoh appears also to have represented the moon. The hieroglyphics for "pharaoh's placenta" is also the spelling for Khons or Khonsu, the moon-god, son of Amon and Mut. [75]. Amon and Mut are the male and female creator gods who with Khons formed the Theban triad or holy family of Egyptian religion. The moon-god was hawk-headed, held sway over reproduction and growth, and was labeled "the traveler" as befits his lunar wanderings [76]. In the Egyptian cosmology of Hermopolis the moon god Thoth and sun god Re are addressed as

twins [77]. The pharaoh and his placenta provided a parallel twinship to the sun and moon.

The sky in Egyptian mythology was conceived as a great face with the sun and moon as its two eyes. The Egyptians designated several gods as the sun and moon, different gods personifying the great orbs in the course of evolving Egyptian religious history [78]. Several of the moon gods were associated with healing. Thoth was a god of wisdom and patron of the sciences. His most sensational cure was in relation to the wounds inflicted in the conflict between the gods Horus and Seth. He separated the combatants, healed their wounds, and then replaced Horus' eye which had been plucked out in the struggle [79]. Thoth also assists Isis in restoring to life the infant Horus [80]. Khons, the placenta-moon god, also demonstrates magic healing abilities [81]. Khnum, the potter-creator, who made the pharaoh's Ka, is also a moon god.

It is apparent that the Egyptian was untroubled by conflicting representations and meanings for the same object. It was this type of mental process, called by Frankfort a "multiplicity of approaches," which permitted the Egyptian thinker to link together three different and baffling dualities of nature into a single system. The newborn and his placenta, the sun and the moon, and the corporeal and non-corporeal aspects of man were woven into a system of dualistic symbolic forms. These various "twins" were then pictured, copied, and symbolized for the pleasure, satisfaction, and solace of the Egyptian in the course of his daily worship and ritual.

An interesting variation on the twin theme occurs in Egyptian mythology in the account of the birth of Horus. This account is a reversal of twin birth by having one individual born twice. Osiris impregnates his two sisters who each give birth to Horus [82]. Horus completes the non-logical cycle by having two burial places [83].

In summary the religion of ancient Egypt made use of the twin in important ways as a bridge to the spiritual world. The ancient Egyptian simultaneously regarded the pharaoh's placenta as (a) his twin, (b) a spiritual emanation of supreme importance, the Ka, and (c) an equivalent of the moon as the god Khons. The placenta is the lunar twin to the pharaoh in his role as a god incarnate and the earthly emanation of the sun. Thus, pharaoh and placenta are the material reflections of sun and moon and a basis for an Egyptian religious dualistic formulation. Throughout the dualistic formulation, powers of healing, health-granting, or rejuvenation are regularly attributed to the divine participants.

EPICRISIS

The question of the basis for the mythological association of twins and healing may be related back to a linking theme of procreation. Twins are the living embodiment and natural symbol of exuberant and unique reproduction. As an extension of twin symbolism, the other products of conception are sometimes considered as siblings. Twins in folklore have been universally viewed as a living indication of increased or altered fertility. For both primitive and ancient man twins were interpreted as the outcome of superhuman generativity. Following from this twins were thought to have special powers of their own inherited from their exceptional procreators. When the placenta has been viewed as a twin, it has been venerated and closely associated with the well-being of its original owner. In the case of the ancient Egyptians, the placenta was equated with a non-corporeal entity which was responsible for the pharaoh's vitality and transmission of his power in death to his successor.

The powers of mythological and legendary twins in relation to reproduction have been widely elaborated into a recurring folkloristic pattern, including the ability (a) to make fertile the barren wife, (b) to facilitate childbirth, (c) to restore youth and potency to the aged, (d) to increase harvests from both plant and animal sources, and (e) to influence the weather upon which harvests depend. Closely related to this group of generative attributes is the lore involving the special ability of twins to predict the future or to prognosticate: crops, offspring, weather, warfare.

The supernatural powers of twins are readily relatable to the areas of health and healing. The twin empowered with the ability to ease birth pangs or reverse sterility will naturally be sought for broader health care assignments. Thus, we may view the broad association of twins and healing as stemming from their own exceptional procreation as elaborated in folklore.

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